# FACT SHEET FOR STATE WASTE DISCHARGE PERMIT NO. ST 6174 STOWE WOODWARD MOUNT HOPE KELSO, WASHINGTON

## **SUMMARY**

This is the first permit for this existing business.

**Issuance Date: September 5, 2002** 

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#### INTRODUCTION

This fact sheet is a companion document to the draft State Waste Discharge Permit No. ST 6174. The Department of Ecology (the Department) is proposing to issue this permit, which will allow discharge of wastewater to Cowlitz Water Pollution Control Plant (CWPC). This fact sheet explains the nature of the proposed discharge, the Department's decisions on limiting the pollutants in the wastewater, and the regulatory and technical bases for those decisions.

Washington State law (RCW 90.48.080 and 90.48.160) requires that a permit be issued before discharge of wastewater to waters of the state is allowed. This statute includes commercial or industrial discharges to sewerage systems operated by municipalities or public entities which discharge into public waters of the state. Regulations adopted by the state include procedures for issuing permits and establish requirements which are to be included in the permit (Chapter 173-216 WAC).

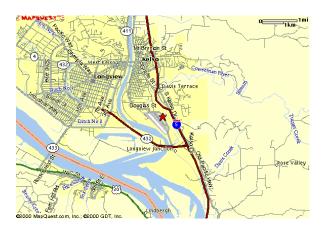
This fact sheet and draft permit are available for review by interested persons as described in Appendix A- Public Involvement Information.

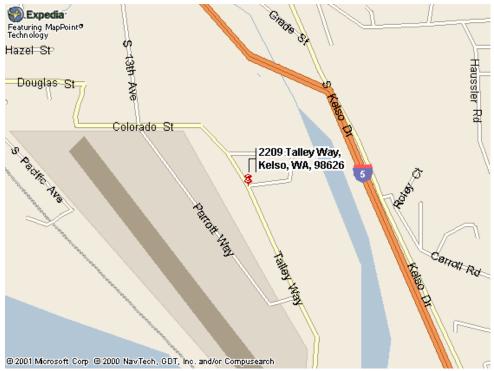
The fact sheet and draft permit have been reviewed by the Permitee. Errors and omissions identified in these reviews have been corrected before going to public notice. After the public comment period has closed, the Department will summarize the substantive comments and the response to each comment. The summary and response to comments will become part of the file on the permit and parties submitting comments will receive a copy of the Department's response. The fact sheet will not be revised. Changes to the permit will be addressed in Appendix D- Response to Comments.

GENERAL INFORMATION		
Applicant	Stowe Woodward, LLC One Technology Drive Westborough, MA 01581	
Facility Name and Address	Stowe Woodward Mount Hope 2209 Talley Way Kelso, WA 98626	
Type of Facility	Elastomeric Roll Coatings and Refurbishing Industrial Rollers	
Facility Discharge Location	Latitude: 46° 07' 27" N Longitude: 122° 53' 46" W	
Treatment Plant Receiving Discharge	Cowlitz Water Pollution Control Plant	
Contact at Facility	Nils Sandstrom (360) 636-0330	
Responsible Official	Nils Sandstrom, Plant Manager 2209 Talley Way Kelso, WA 98626 FAX #(360) 423-5359	

#### **BACKGROUND INFORMATION**

#### DESCRIPTION OF THE FACILITY





Stowe Woodward Mount Hope is an existing manufacturing facility that refinishes industrial rollers for a variety of industrial applications, from companies around the US and Canada. Two separate but related business operations exist in the same building at the site. Stowe Woodward fabricates elastomeric roll coverings which are applied to metal roll bodies. The surface coating, or sleeve, on metal rollers, such as from the textile and paper industries, is removed and replaced with either a rubber or polyurethane composite coating. The coating is bonded to the metal roll body, finished to produce a smooth surface, and then returned to the customer. This accounts for 85% of their business.

The Mount Hope side of the business refurbishes non-coated bowed, or curved, rollers, including brackets, bearings, housings, and rubber sleeves. Mount Hope accounts for 15 percent of the total business.

#### HISTORY

The facility has operated since about 1967. At Ecology's request, Stowe Woodward submitted an application in July 1997. Ecology accepted the application but did not act on the application so a temporary permit was automatically in effect, as per RCW 90.48.200. Ecology followed up with a visit in June 2001. Questions of specific wastestream generation and disposal locations were answered by Stowe Woodward. At Ecology's request, Stowe Woodward re-submitted their application in December 2001, updated with new information. Ecology then made the determination that a permit was needed.

#### INDUSTRIAL PROCESSES

Stowe Woodward estimates that they apply new elastomeric roll coatings to about 400 rollers per year, and regrind and buff about 100 rollers per year (SIC code 3069-Fabricated Rubber Products). Mount Hope refurbishes about 50 bowed rollers per year (SIC code 3554-Paper Industries Machinery). The facility is subject to Categorical Pretreatment Standards. However, the discharge flow rate is less than 25,000 gallons per day and less than five percent of the flow rate and loading of the POTW. Therefore, the facility is not a significant industrial user.

The facility operates 16 hours per day, 5 days per week, year around, and employees about 31 workers.

A list of raw materials used by Stowe Woodward was included with the permit application.

#### TREATMENT PROCESSES

Industrial process wastewater receives some treatment from an in-ground oil/water separator/ settling chamber, just prior to discharge to the City of Kelso sewer system. No wastewater is generated by the Mount Hope side, only by the Stowe Woodward side of the business.

Stowe Woodward's application lists three sources of industrial process wastewater: boiler operation, vulcanizer condensate, and equipment washroom. A fourth, the rubber mill cooling system, is a closed system which does not discharge.

For boiler operation, Stowe Woodward generates boiler blowdown and backwash from two boiler water treatment systems, estimated at a total of 15 gallons per day. Condensate from the vulcanizer averages 50 to 100 gallons per day. In the washroom, rollers are washed to remove dust and rubber particles, and averages 20 to 200 gallons per day. Baking soda (sodium bicarbonate) has been used as a blast medium for cleaning the rollers prior to applying the new coverings. However, at this time, Stowe Woodward is contracting out this activity.

Stowe Woodward has a City water meter that measures incoming volume. Much of this water is lost to evaporation in the vulcanizing process. The effluent is not routinely measured, but is probably much less than the influent volume. Stowe Woodward estimates total process water discharge of up to 950 gallons per day.

## PERMIT STATUS

At Ecology's request, Stowe Woodward submitted an application in July 1997. After asking for and receiving additional information, Ecology approved the application in May 1998. An administrative temporary permit was issued August 7, 1998, with the stated expectation that a permit would be issued in 2001.

While preparing to write the permit, Ecology visited the facility in May 2001. Some questions of flow generation points and discharge points existed, so Ecology requested an updated permit application. Stowe Woodward investigated the issues in question and conducted some effluent sampling. An updated

application was submitted to the Department on December 11, 2001 and was accepted by the Department on February 22, 2002.

### SUMMARY OF COMPLIANCE WITH THE PREVIOUS PERMIT

The facility last received an inspection on December 27, 2001. A permit compliance history does not exist, since a permit has not yet been issued.

#### WASTEWATER CHARACTERIZATION

The concentration of pollutants in the discharge was reported in the permit application and in discharge monitoring reports. The proposed wastewater discharge is characterized for the following parameters, according to information provided in the permit application (one set of samples taken from the oil/water separator):

Parameter	Concentration	Parameter	Concentration
Flow	600-900 gpd	Arsenic, total	633 µg/L
BOD	62 mg/L	Chromium, total	103 μg/L
COD	269 mg/L	Copper, total	561 μg/L
Total Suspended Solids	30 mg/L	Lead, total	42 μg/L
Ammonia-N	0.88 mg/L	Zinc, total	147 μg/L
pН	10.43 std units	Phenol	90 μg/L
Nitrate + nitrite	0.3 mg/L	N-Nitrosodiphenylamine	65 μg/L
Total Phosphorus	0.86 mg/L	Di-n butyl Phthalate	170 μg/L
Oil and Grease	170 mg/L	Bis(2 ethylhexyl) phthalate	850 μg/L
Sulfate	73.4 mg/L		

#### PROPOSED PERMIT LIMITATIONS

State regulations require that limitations set forth in a waste discharge permit must be based on the technology available to treat the pollutants (technology-based) or be based on the effects of the pollutants to the POTW (local limits). Wastewater must be treated using all known, available, and reasonable treatment (AKART) and not interfere with the operation of the POTW.

The more stringent of the local limits-based or technology-based limits are applied to each of the parameters of concern. Each of these types of limits is described in more detail below.

#### TECHNOLOGY-BASED EFFLUENT LIMITATIONS

All waste discharge permits issued by the Department must specify conditions requiring all available and reasonable methods of prevention, control, and treatment of discharges to waters of the state (WAC 173-216-110). Stowe Woodward's processes are included under categorical limitations of 40 CFR Part 428 Subpart E- Small Sized General Molded, Extruded, and Fabricated Rubber Plants. However, this category has no category for Pretreatment Standards for Existing Sources, only for new sources. Therefore, only the general pretreatment standards apply as found in 40 CFR Part 403. These limits are covered by the general conditions in the proposed permit, and local pretreatment standards.

Effluent limitations based on AKART are as follows:

Parameter	Limit
pH (standard units)	5.5-9.0
BOD	250 mg/L
TSS	250 mg/L
Oil and Grease	150 mg/L

#### EFFLUENT LIMITATIONS BASED ON LOCAL LIMITS

In order to protect Cowlitz Water Pollution Control Plant from pass-through, interference, concentrations of toxic chemicals that would impair beneficial or designated uses of sludge, or potentially hazardous exposure levels, limitations for certain parameters are necessary. These limitations are based on local limits established or proposed by the Cowlitz Sewer Operating Board, or established by the city of Kelso, and are codified in ordinance. Applicable limits for this discharge include the following:

Parameter	Limit
pH, standard units	6.0-9.0 (City of Kelso ordinance)
Total Suspended Solids, mg/L	250*
Biochemical Oxygen Demand (BOD) (mg/L)	250*

<sup>\*</sup> proposed by Cowlitz Sewer Operating Board.

Therefore, the more stringent of these are proposed for the permit limits, as follows:

Parameter	Limit
pH (standard units)	6.0-9.0
BOD	250 mg/L
TSS	250 mg/L
Oil and Grease	150 mg/L

## MONITORING REQUIREMENTS

Monitoring, recording, and reporting are specified to verify that the treatment process is functioning correctly, and that effluent limitations are being achieved (WAC 173-216-110).

The monitoring schedule is detailed in the proposed permit under Condition S2. Specified monitoring frequencies take into account the quantity and variability of the discharge, the treatment method, past compliance, significance of pollutants, and cost of monitoring.

Ecology will allow an instantaneous flow measurement at the time of sample collection. A more advanced flow monitoring system may be required in the future.

Monitoring for priority pollutants is being required to further characterize the effluent. These pollutant(s) could have a significant impact on the receiving POTW.

#### OTHER PERMIT CONDITIONS

#### REPORTING AND RECORDKEEPING

The conditions of S3 are based on the authority to specify any appropriate reporting and recordkeeping requirements to prevent and control waste discharges (WAC 273-216-110 and 40 CFR 403.12 (e), (g), and (h)).

#### OPERATIONS AND MAINTENANCE

The proposed permit contains condition S.5., as authorized under Chapter 173-240-150 WAC and Chapter 173-216-110 WAC. It is included to ensure proper operation and regular maintenance of equipment, and to ensure that adequate safeguards are taken so that constructed facilities are used to their optimum potential in terms of pollutant capture and treatment.

#### PROHIBITED DISCHARGES

Certain pollutants are prohibited from being discharged to the POTW. These include substances which cause pass-through or interference, pollutants which may cause damage to the POTW or harm to the POTW workers (Chapter 173-216 WAC) and the discharge of designated dangerous wastes not authorized by this permit (Chapter 173-303 WAC).

#### DILUTION PROHIBITED

The Permitee is prohibited from diluting its effluent as a partial or complete substitute for adequate treatment to achieve compliance with permit limitations.

#### NON-ROUTINE AND UNANTICIPATED DISCHARGES

Occasionally, this facility may generate wastewater which is not characterized in their permit application because it is not a routine discharge and was not anticipated at the time of application. These are typically clean waste waters but may be contaminated with pollutants. The permit contains an authorization for non-routine and unanticipated discharges. The permit requires a characterization of these waste waters for pollutants and examination of the opportunities for reuse. Depending on the nature and extent of pollutants in this wastewater and opportunities for reuse, Ecology may authorize a direct discharge via the process wastewater outfall or through a stormwater outfall for clean water, or require the water to be reused.

#### GENERAL CONDITIONS

General Conditions are based directly on state laws and regulations and have been standardized for all industrial waste discharge to POTW permits issued by the Department.

Condition G1 requires responsible officials or their designated representatives to sign submittals to the Department. Condition G2 requires the Permitee to allow the Department to access the treatment system, production facility, and records related to the permit. Condition G3 specifies conditions for modifying, suspending or terminating the permit. Condition G4 requires the Permitee to apply to the Department

prior to increasing or varying the discharge from the levels stated in the permit application. Condition G5 requires the Permitee to construct, modify, and operate the permitted facility in accordance with approved engineering documents. Condition G6 prohibits the Permitee from using the permit as a basis for violating any laws, statutes or regulations. Conditions G7 and G8 relate to permit renewal and transfer. Condition G9 requires the Permitee to control production or wastewater discharge in order to maintain compliance with the permit. Condition G10 prohibits the reintroduction of removed pollutants into the effluent stream for discharge. Condition G11 requires the payment of permit fees. Condition G12 describes the penalties for violating permit conditions.

## PUBLIC NOTIFICATION OF NONCOMPLIANCE

A list of all industrial users which were in significant noncompliance with Pretreatment Standards or Requirements during any of the previous four quarters may be annually published by the Department in a local newspaper. Accordingly, the Permitee is apprised that noncompliance with this permit may result in publication of the noncompliance.

#### RECOMMENDATION FOR PERMIT ISSUANCE

This proposed permit meets all statutory requirements for authorizing a wastewater discharge, including those limitations and conditions believed necessary to control toxics. The Department proposes that the permit be issued for 4 years, expiring June 30, 2006. Thus, this permit renewal will occur with all other facilities in the Lower Columbia basin. Future permits will be issued for a five year term.

#### **APPENDICES**

#### APPENDIX A—PUBLIC INVOLVEMENT INFORMATION

The Department has tentatively determined to reissue a permit to the applicant listed on page 1 of this fact sheet. The permit contains conditions and effluent limitations which are described in the rest of this fact sheet.

Public notice of application was published on 8/20/01 and 8/26/01 in the Longview Daily News to inform the public that an application had been submitted and to invite comment on the reissuance of this permit.

The Department published a Public Notice of Draft (PNOD) on July 19, 2002 in the Longview Daily News to inform the public that a draft permit and fact sheet are available for review. Interested persons are invited to submit written comments regarding the draft permit. The draft permit, fact sheet, and related documents are available for inspection and copying between the hours of 8:00 a.m. and 5:00 p.m. weekdays, by appointment, at the regional office listed below. Written comments should be mailed to:

Water Quality Permit Coordinator Department of Ecology Southwest Regional Office P.O. Box 47775 Olympia, WA 98504-7775

Any interested party may comment on the draft permit or request a public hearing on this draft permit within the thirty (30) day comment period to the address above. The request for a hearing shall indicate the interest of the party and reasons why the hearing is warranted. The Department will hold a hearing if it determines there is a significant public interest in the draft permit (WAC 173-216-100). Public notice regarding any hearing will be circulated at least thirty (30) days in advance of the hearing. People expressing an interest in this permit will be mailed an individual notice of hearing.

Comments should reference specific text followed by proposed modification or concern when possible. Comments may address technical issues, accuracy and completeness of information, the scope of the facility's proposed coverage, adequacy of environmental protection, permit conditions, or any other concern that would result from issuance of this permit.

The Department will consider all comments received within thirty (30) days from the date of public notice of draft indicated above, in formulating a final determination to issue, revise, or deny the permit. The Department's response to all significant comments is available upon request and will be mailed directly to people expressing an interest in this permit.

Further information may be obtained from the Department by telephone, (360) 407-6286, or by writing to the address listed above.

This permit was written by Don Reif, Environmental Engineer.

#### APPENDIX B—GLOSSARY

**Ammonia**—Ammonia is produced by the breakdown of nitrogenous materials in wastewater. Ammonia is toxic to aquatic organisms, exerts an oxygen demand, and contributes to eutrophication. It also increases the amount of chlorine needed to disinfect wastewater.

**Average Monthly Discharge Limitation**—The average of the measured values obtained over a calendar month's time.

**Best Management Practices (BMPs)**--Schedules of activities, prohibitions of practices, maintenance procedures, and other physical, structural and/or managerial practices to prevent or reduce the pollution of waters of the State. BMPs include treatment systems, operating procedures, and practices to control: plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage. BMPs may be further categorized as operational, source control, erosion and sediment control, and treatment BMPs.

**BOD**<sub>5</sub>--Determining the Biochemical Oxygen Demand of an effluent is an indirect way of measuring the quantity of organic material present in an effluent that is utilized by bacteria. The BOD<sub>5</sub> is used in modeling to measure the reduction of dissolved oxygen in a receiving water after effluent is discharged. Stress caused by reduced dissolved oxygen levels makes organisms less competitive and less able to sustain their species in the aquatic environment. Although BOD is not a specific compound, it is defined as a conventional pollutant under the federal Clean Water Act.

**Bypass**—The intentional diversion of waste streams from any portion of the collection or treatment facility.

Categorical Pretreatment Standards—National pretreatment standards specifying quantities or concentrations of pollutants or pollutant properties which may be discharged to a POTW by existing or new industrial users in specific industrial subcategories.

**Compliance Inspection - Without Sampling--**A site visit for the purpose of determining the compliance of a facility with the terms and conditions of its permit or with applicable statutes and regulations.

**Compliance Inspection - With Sampling-**-A site visit to accomplish the purpose of a Compliance Inspection - Without Sampling and as a minimum, sampling and analysis for all parameters with limits in the permit to ascertain compliance with those limits; and, for municipal facilities, sampling of influent to ascertain compliance with the 85 percent removal requirement. Additional sampling may be conducted.

Composite Sample—A mixture of grab samples collected at the same sampling point at different times, formed either by continuous sampling or by mixing discrete samples. May be "time-composite" (collected at constant time intervals) or "flow-proportional" (collected either as a constant sample volume at time intervals proportional to stream flow, or collected by increasing the volume of each aliquot as the flow increased while maintaining a constant time interval between the aliquots.

**Construction Activity**—Clearing, grading, excavation and any other activity which disturbs the surface of the land. Such activities may include road building, construction of residential houses, office buildings, or industrial buildings, and demolition activity.

**Continuous Monitoring** –Uninterrupted, unless otherwise noted in the permit.

**Engineering Report**—A document, signed by a professional licensed engineer, which thoroughly examines the engineering and administrative aspects of a particular domestic or industrial wastewater

facility. The report shall contain the appropriate information required in WAC 173-240-060 or 173-240-130.

**Grab Sample**—A single sample or measurement taken at a specific time or over as short period of time as is feasible.

**Industrial User**—A discharger of wastewater to the sanitary sewer which is not sanitary wastewater or is not equivalent to sanitary wastewater in character.

**Industrial Wastewater**—Water or liquid-carried waste from industrial or commercial processes, as distinct from domestic wastewater. These wastes may result from any process or activity of industry, manufacture, trade or business, from the development of any natural resource, or from animal operations such as feed lots, poultry houses, or dairies. The term includes contaminated storm water and, also, leachate from solid waste facilities.

**Interference**— A discharge which, alone or in conjunction with a discharge or discharges from other sources, both:

Inhibits or disrupts the POTW, its treatment processes or operations, or its sludge processes, use or disposal and;

Therefore is a cause of a violation of any requirement of the POTW's NPDES permit (including an increase in the magnitude or duration of a violation) or of the prevention of sewage sludge use or disposal in compliance with the following statutory provisions and regulations or permits issued thereunder (or more stringent State or local regulations): Section 405 of the Clean Water Act, the Solid Waste Disposal Act (SWDA) (including title II, more commonly referred to as the Resource Conservation and Recovery Act (RCRA), and including State regulations contained in any State sludge management plan prepared pursuant to subtitle D of the SWDA), sludge regulations appearing in 40 CFR Part 507, the Clean Air Act, the Toxic Substances Control Act, and the Marine Protection, Research and Sanctuaries Act.

**Local Limits**—Specific prohibitions or limits on pollutants or pollutant parameters developed by a POTW.

**Maximum Daily Discharge Limitation**—The highest allowable daily discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling. The daily discharge is calculated as the average measurement of the pollutant over the day.

**Method Detection Level (MDL)**--The minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is above zero and is determined from analysis of a sample in a given matrix containing the analyte.

**Pass-through**— A discharge which exits the POTW into waters of the-State in quantities or concentrations which, alone or in conjunction with a discharge or discharges from other sources, is a cause of a violation of any requirement of the POTW's NPDES permit (including an increase in the magnitude or duration of a violation), or which is a cause of a violation of State water quality standards.

**pH**—The pH of a liquid measures its acidity or alkalinity. A pH of 7 is defined as neutral, and large variations above or below this value are considered harmful to most aquatic life.

**Potential Significant Industrial User-**-A potential significant industrial user is defined as an Industrial User which does not meet the criteria for a Significant Industrial User, but which discharges wastewater meeting one or more of the following criteria:

a. Exceeds 0.5 % of treatment plant design capacity criteria and discharges <25,000 gallons per day or;

b. Is a member of a group of similar industrial users which, taken together, have the potential to cause pass through or interference at the POTW (e.g. facilities which develop photographic film or paper, and car washes).

The Department may determine that a discharger initially classified as a potential significant industrial user should be managed as a significant industrial user.

**Quantitation Level (QL)--** A calculated value five times the MDL (method detection level).

## Significant Industrial User (SIU)--

- 1) All industrial users subject to Categorical Pretreatment Standards under 40 CFR 403.6 and 40 CFR Chapter I, Subchapter N and;
- 2) Any other industrial user that: discharges an average of 25,000 gallons per day or more of process wastewater to the POTW (excluding sanitary, noncontact cooling, and boiler blow-down wastewater); contributes a process wastestream that makes up 5 percent or more of the average dry weather hydraulic or organic capacity of the POTW treatment plant; or is designated as such by the Control Authority\* on the basis that the industrial user has a reasonable potential for adversely affecting the POTW's operation or for violating any pretreatment standard or requirement (in accordance with 40 CFR 403.8(f)(6)).

Upon finding that the industrial user meeting the criteria in paragraph 2, above, has no reasonable potential for adversely affecting the POTW's operation or for violating any pretreatment standard or requirement, the Control Authority\* may at any time, on its own initiative or in response to a petition received from an industrial user or POTW, and in accordance with 40 CFR 403.8(f)(6), determine that such industrial user is not a significant industrial user.

\*The term "Control Authority" refers to the Washington State Department of Ecology in the case of non-delegated POTWs or to the POTW in the case of delegated POTWs.

**Slug Discharge**—Any discharge of a non-routine, episodic nature, including but not limited to an accidental spill or a non-customary batch discharge to the POTW. This may include any pollutant released at a flow rate which may cause interference with the POTW.

**State Waters**—Lakes, rivers, ponds, streams, inland waters, underground waters, salt waters, and all other surface waters and watercourses within the jurisdiction of the state of Washington.

**Stormwater**—That portion of precipitation that does not naturally percolate into the ground or evaporate, but flows via overland flow, interflow, pipes, and other features of a storm water drainage system into a defined surface water body, or a constructed infiltration facility.

**Technology-based Effluent Limit**—A permit limit that is based on the ability of a treatment method to reduce the pollutant.

**Total Coliform Bacteria**—A microbiological test which detects and enumerates the total coliform group of bacteria in water samples.

**Total Dissolved Solids**—That portion of total solids in water or wastewater that passes through a specific filter.

**Total Suspended Solids (TSS)-**-Total suspended solids is the particulate material in an effluent. Large quantities of TSS discharged to a receiving water may result in solids accumulation. Apart from any toxic effects attributable to substances leached out by water, suspended solids may kill fish, shellfish, and other aquatic organisms by causing abrasive injuries and by clogging the gills and respiratory passages of

various aquatic fauna. Indirectly, suspended solids can screen out light and can promote and maintain the development of noxious conditions through oxygen depletion.

Water Quality-based Effluent Limit—A limit on the concentration of an effluent parameter that is intended to prevent the concentration of that parameter from exceeding its water quality criterion after it is discharged into a receiving water.

# APPENDIX C—RESPONSE TO COMMENTS

No comments received.